



2

Serial No. 08/827,322
Art Unit 2744

RECEIVED
AUG 11 2000
1C 2700 MAIL ROOM

optics [(14b)] connected to said camera for passing said image information thereto,

at least one memory unit [(24)] for storing said image information, and

an output coupled to said data processing unit for outputting image information from said memory unit thereto [(2)],

and wherein at least a portion of said camera unit [(14)] is located within [a] said housing [(1) of the device], and

[wherein] said data processing unit [(2)] processes image information output by said camera unit [(14)], and

wherein said device further comprises means for transmitting image information processed by said processing unit [(2)] to another location using a radio frequency channel.

2
4. (Amended) A device according to Claim 1, [characterized in that] wherein said means for transmitting image information [means] comprises a cellular mobile phone unit [(17)].

1ns G2
5. (Amended) A device according to Claim 4, [characterized in that] wherein the cellular mobile phone unit contains [the] equipment required by speech communications, such as a microphone [(20)] and a speaker [(19)], [contained in the cellular mobile phone unit (17), are] which equipment is fitted in the housing [(1)] of the device.

2F

F

Serial No. 08/807,322
Art Unit 2744

J3
26. (Thrice Amended) A device [according to Claim 1,] for personal communication, data collection and data processing, which is a small-sized, portable and hand-held work station including a housing and comprising a data processing unit; a display; a user interface; a number of peripheral device interfaces; at least one memory unit; a power source; and an application software, wherein the device also comprises:

a camera unit for obtaining and outputting image information, said camera unit comprising:

a camera;
optics connected to said camera;
at least one memory unit;
an output coupled to said data processing unit such that said data processing unit processes image information output by said camera unit; at least a portion of said camera unit being located within said housing; and

[characterized in that the] wherein said device further comprises:
means for transmitting image information processed by said processing unit to another location using a radio frequency channel; and
a replaceable keyboard [(28)] and a digitizer pad [(29)] which are both adapted to couple to a same physical and electrical interface to the device.

J4 Cont
5. (Amended) A device according to Claim 1, [characterized in

OJ

F

Serial No. 08/807,322
Art Unit 2744

JY
Jandy
that the device comprises] further comprising an infrared link [(12)] for data transmission between external devices and the device.

25 J5 8. (Fourthly Amended) A circuit card, which can be fitted to a card slot of a device for personal communication, data collection and data processing, comprising a camera unit [in particular, characterized in that] having at least a portion thereof [a camera unit (14) is] integrated in the circuit card [(15), said camera unit (14)] for obtaining and outputting image information, said camera unit comprising:

a camera [(14a), and] with optics [(14b)] connected thereto, an image processing unit [(14c)] for processing and outputting image information obtained by said camera for use with said device, and

an output for coupling image information, processed and output by said image processing unit for use with said device, to means in[,] said device [including means] for processing image information output by said camera unit [(14) and means for transmitting image information processed by said processing means] for transmission to another location using a radio frequency channel.

Jb
Gmt
29 8. (Fourthly Amended) A portable radiotelephone comprising:
a solid-state camera unit for receiving image information,

Ab

F

Serial No. 08/807,322
Art Unit 2744

[a user interface,]

a display for presenting image information [obtained] received by the camera unit to a user,

a microprocessor adapted to control the operations of the camera unit and to process image information received by the camera unit, and

means for transmitting image information processed by said microprocessor from said radiotelephone to another location using a radio frequency channel, and

wherein the camera unit comprises:

a camera, and

means for processing and for storing at least a portion of the image information received by the camera unit for later recall and processing.

10. A device according to Claim 1, wherein the power source is a battery.

11. (Amended) A device according to Claim 1, wherein the camera [(14a)] is a semiconductor camera.

12. (Amended) A device according to claim 1, wherein said camera unit [(14)] further comprises means for processing image information from an image taken by said camera [(14a)] and for storing the image in said at least one memory unit [(24)] for later

A7

F

Serial No. 08/807,322
Art Unit 2744

recall.

JJG3 24 13. (Amended) A device according to Claim 8, wherein the camera [(14a)] is a semiconductor camera.

JGm 24 14. (Amended) A device according to Claim 8, wherein the circuit card [(15)] is a PCMCIA card, and wherein the card slot is a PCMCIA card slot.

JGm 25 30 15. (Thrice Amended) A device for personal communication, data collecting and data processing, which is a small-sized, portable and hand-held work station comprising a data processing unit [(2)]; a display [(9)]; a user interface [(10, 11)]; a number of peripheral device interfaces [(12, 17)]; at least one memory unit [(13)]; a power source; a card slot; and application software, [characterized in that] wherein the device also comprises:

545 H2 a circuit card electrically couplable to said card slot;

a camera unit [(14)] for obtaining image information, [said camera unit (14)] including a camera (14a), optics (14b), and an output, [wherein] and with at least a portion of the camera unit [(14)] is integrated in [a] said circuit card that is electrically couplable to the card slot of the device, and wherein said data processing unit [(2) processes] is coupled to said output for processing image information output by said camera unit (14) while said circuit card is electrically

A8

F

Serial No. 08/807,322
Art Unit 2744

J8 Jmcl
SGB H2

coupled to said card slot of said device, and [wherein said device further comprises]
means for transmitting image information processed by said data processing unit [(2)] from said device to another location using a radio frequency channel.

J9

31 16. (Amended) A device according to Claim *15*, wherein the camera [(14a)] is a semiconductor camera.

17 17. A device according to Claim 15, wherein the circuit card is a PCMCIA card, and wherein the card slot is a PCMCIA card slot.

J10

34 18. (Amended) A device according to claim *2*, wherein the cellular mobile phone unit [(17)] is for transmitting at least one of data and speech.

J11 JGK

34 19. (Thrice Amended) A portable notebook computer having a housing, comprising:

a camera unit for recording an image of a selected object, [said camera unit comprising] and having at least one memory unit for storing an image recorded by said camera unit; means, coupled to said camera unit, for processing an image recorded by said camera unit, and means for transmitting an image processed by said processing means to another location using a radio frequency channel;

A9

F

Serial No. 08/807,322
Art Unit 2744

wherein at least a portion of said camera unit is integrated in one of [a] said housing of said notebook computer and a circuit card.

20. A portable notebook computer according to claim 19, wherein said camera unit further comprises:

means for performing character recognition of characters appearing in an image recorded by said camera unit.

21. A portable notebook computer according to claim 19, further comprising:

means, coupled to said processing means, for displaying at least a portion of an image recorded by said camera unit; and means for selectively modifying an image appearing on said display.

22. A portable notebook computer according to claim 19, wherein said transmitting means comprises:

means for transmitting a facsimile transmission of at least a portion of an image processed by said processing means.

23. A portable notebook computer according to claim 19, further comprising:

means, coupled to said processing means, for receiving a facsimile from a transmitting station.

Serial No. 08/807,322
Art Unit 2744

5324. (Twice Amended) A portable notebook computer [according to claim 19,] having a housing, comprising:

J12
a camera unit for recording an image of a selected object, and having at least one memory unit for storing an image recorded by said camera unit;

means, coupled to said camera unit, for processing an image recorded by said camera unit; and

means for transmitting an image processed by said processing means to another location using a radio frequency channel; wherein at least a portion of said camera unit is integrated in one of said housing of said notebook computer and a circuit card; and

further comprising a digitizer pad that is removably coupled to said processing means such that it can be replaced with another type of manual input device.

25. A portable notebook computer according to claim 19, further comprising means for performing at least one of transmitting an electronic mail message, paging, and connecting to an on-line information service.

26. A portable notebook computer according to claim 19, wherein the circuit card is a PCMCIA card.

27. A portable notebook computer according to claim 19,

J1

F

Serial No. 08/807,322
Art Unit 2744

wherein said transmitting means comprises means for transmitting a Short Message Service (SMS) message including at least a portion of an image processed by said processing means.

JB
54
28. (Thrice Amended) A method for recording and processing an image of a selected object using a portable notebook computer, the notebook computer having a data processing unit, a facsimile transmitting unit, a housing, and a card slot, comprising the steps of:

integrating a camera unit that is electrically coupled to the data processing unit, [the camera unit being integrated] in one of [a] said housing of the notebook computer and a circuit card that is fitted into [a] said card slot of the notebook computer, [wherein the method comprises the steps of:] operating the camera unit to record an image of the selected object; and

storing and processing the image recorded by the camera unit to perform character recognition of characters appearing in at least a portion of the recorded image; and

[transmittal of] using the facsimile transmitting unit to transmit a facsimile representation of at least a portion of the recorded image to another location using a radio frequency channel.

29. A portable computer device, comprising:

31

F

Serial No. 08/807,322
Art Unit 2744

a data processor coupled to a memory;
an electronic camera unit that is detachably coupled to the data processor through a plug-in interface, said electronic camera unit comprising a solid state camera, a second data processor and a second memory, said second data processor being operable for performing at least a character recognition task on an image obtained by said solid state camera unit to generate a set of recognized characters; and
a radio transceiver unit coupled to said data processor for transmitting data to a remote receiver through a radio frequency channel, said transmitted data comprising at least one of processed image data obtained from said electronic camera unit or at least a portion of said set of recognized characters.

30. A portable computer device as in claim 29, and further comprising a display for displaying at least a portion of an image recorded by said electronic camera unit, and wherein said data processor is responsive to a program stored in said memory and to a user input for selectively modifying a displayed image.

31. A portable computer device as in claim 29, and further comprising a manual user input interface adapted to be physically and electrically coupled to and decoupled from one of at least two types of user input devices, wherein a first type of user input

F

Serial No. 08/807,322
Art Unit 2744

device is comprised of a keyboard, and wherein a second type of user input device is comprised of a digitizer pad.

32. A portable computer device as in claim 31 and further comprising a display for displaying information to a user, and wherein said manual user input interface is further adapted to be rotatably attached to a housing of said portable computer device such that said user input device that is coupled to said computer device can be rotated so as cover said display.

Please add the following new claims:

JMK
3nsG67
33. A device for personal communication and data collection and processing, comprising:

a small-sized, portable and hand-held work station;

a housing for said work station;

a data processing unit;

a display;

a user interface;

a number of peripheral device interfaces;

at least one memory unit;

a power source; and

application software;

and further comprising:

means, coupled to said data processing unit, for transmitting

F

Serial No. 08/807,322
Art Unit 2744

image information processed by said data processing unit to another location using a radio frequency channel; and a camera card for obtaining image information, and comprising:

optics integrated in said camera card for obtaining said image information;

at least one memory unit;

a processor unit for processing said image information;

and

an image sensor for obtaining said image information;

and wherein said camera card is at least partially inserted in the device.

*JK
Contd.*

34. The device of claim 33, further comprising a digitizer pad that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device.

35. The device of claim 33, further comprising a keyboard that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device.

36. The device of claim 33, further comprising means for performing a character recognition task on an image obtained by said camera card for generating a set of recognized characters.

F

Serial No. 08/807,322
Art Unit 2744

65
31. A device for personal communication and data collection and processing, comprising:

a small-sized, portable and hand-held work station;
a housing for said work station;
a data processing unit;
a display;
a user interface;
a number of peripheral device interfaces;
at least one memory unit;
a power source; and
application software;

314
Cont.
and further comprising:

a cellular mobile phone unit, coupled to said data processing unit, for transmitting image information processed by said data processing unit to another location; and
a camera card for obtaining image information, comprising:

optics integrated in said camera card for obtaining said image information;
at least one memory unit;
a processor unit for processing said image information;
and
an image sensor for obtaining said image information;
and wherein said camera card is at least partially inserted in the device.

33

F

Serial No. 08/807,322
Art Unit 2744

INSR 38. The device of claim 37, further comprising a digitizer pad that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device

JIA 39. The device of claim 37, further comprising a keyboard that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device.

Cox 40. The device of claim 37, further comprising means for performing a character recognition task on an image obtained by said camera card for generating a set of recognized characters.

b9 41. A device for personal communication, data collection and data processing, which is a small-sized, portable and hand-held work station with a housing, comprising:

a data processing unit;

a display;

a user interface;

a number of peripheral device interfaces;

at least one memory unit;

a power source; and

application software;

wherein the device also comprises:

34

F

Serial No. 08/807,322
Art Unit 2744

means, coupled to said data processing unit, for transmitting image information processed by said data processing unit to another location using a radio frequency channel; and a camera unit for obtaining image information, said camera unit comprising:

optics for obtaining image information;
an image sensor for obtaining image information, said image sensor being located within the housing of the device; and
a processor within said camera unit for processing obtained images, said processor being located within the housing of the device.

AMX
Cont'
IHS G81

42. The device of claim 41, further comprising a digitizer pad that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device.

Cont'

43. The device of claim 41, further comprising a keyboard that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device.

44. The device of claim 41, further comprising means for performing a character recognition task on an image obtained by

35

F

Serial No. 08/807,322
Art Unit 2744

GS
Cond. [said camera unit for generating a set of recognized characters.]

- 13
45. A portable cellular mobile phone comprising:
a built in camera unit for obtaining image information;
a user interface for enabling a user to input signals to operate the camera unit;
a display for presenting image information obtained by the camera unit;
a microprocessor adapted to control the operations of the camera unit in response to input signals from the user interface, and to process image information received by the camera unit; and
means, coupled to said microprocessor, for transmitting image information processed by said microprocessor to another location using a radio frequency channel;
and wherein the camera unit comprises:
optics for obtaining image information;
an image sensor for obtaining image information; and
means for processing and for storing at least a portion of the image information obtained by the camera unit for later recall and processing.

- Cont'd
MSGAT
46. The portable cellular mobile phone of claim 45, further comprising a number of peripheral device interfaces, and a digitizer pad that is removably coupled to one of said number of

36

F

Serial No. 08/807,322
Art Unit 2744

peripheral device interfaces such that it can be replaced with another type of manual input device.

Ga end.
47. The portable cellular mobile phone of claim 45, further comprising a number of peripheral device interfaces, and a keyboard that is removably coupled to one of said number of peripheral device interfaces such that it can be replaced with another type of manual input device.

AM Cont.
48. The portable cellular mobile phone of claim 45, further comprising means for performing a character recognition task on an image obtained by said camera unit for generating a set of recognized characters.

49. A circuit card, which can be fitted to a card slot of a device for personal communication, data collection and data processing, and comprising:

optics built in said circuit card for obtaining image information;

an image sensor in said circuit card for obtaining image information;

an image processing unit in said circuit card;

a memory unit in said image processing unit for storing obtained image information, and

a processor unit in said image processing unit for storing

F